

Atalanta (August 1997) 28 (1/2): 153–156, colour plate IXa, Würzburg, ISSN 0171-0079

**A new species of the genus *Polymixis* HÜBNER, [1820]
from Western Turkmenistan**

(Lepidoptera, Noctuidae)

by

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received 27.XII.1996

Abstract: The new species *Polymixis (Parabrachionycha) remmi* spec. nov. is described from the West Kopet Dagh and the western part of the Karakum Desert. The habitus and the genitalic features of male and female are illustrated.

Several years ago while investigating the Asian noctuid moths in the collection of the Department of Zoology of Tartu University we found an interesting male *Polymixis* specimen (identified as *Leucochlaena* spec. in coll.), collected at the end of October in the western part of the Karakum Desert at the vicinity of Lake Yashkan. By external and general genitalic features it was most similar to *P. (Parabrachionycha) atossa centralasiae* HACKER & BEHOUNEK, 1990, described and known only from the Pamirs at altitudes of approximately 2300 m (HACKER, 1990), but the shape of the valva and the sclerotization of the costal processus were different. As the collecting localities of the subspecies *atossa* and our specimen differs also remarkably, the question arose about the subspecific or specific status of the material.

In 1995, the second author collected a number of specimens of the same form at the vicinity of Kara Kala, in the semidesert zone of the West Kopet Dagh Mountains. This allowed us to study the material more thoroughly including also the characters of the everted vesica and the female genitalia. This examination showed, that the material from Western Turkmenistan belongs to a separate species which is described below and named in honour of Dr. H. REMM, who worked in the Department of Zoology of Tartu University and actively studied Noctuidae during a long time.

***Polymixis (Parabrachionycha) remmi* spec. nov.**
(Colour plate IXa, figs. 1–2)

Description: Length of forewings 18 mm (holotype), 14–19 mm (paratype males) and 16–17 mm (paratype females), resp. Wingspan: 39 mm (holotype), 30–41 mm (paratype males) and 36–38 mm (paratype females), resp. Antennae bipectinate, branches fine and long (males), simple, without pectination (female). Head and thorax grey with an admixture of dark greyish-brown. Pattern of collar and tegulae darker brown. Forewing grey with finely dispersed beige-grey, brownish-grey or—in some specimens—dark greyish-brown scales, marginal field with darker suffusion. Intensity of dark suffusion very variable. Transverse lines and veins dark greyish-brown or dark brown, heavily marked. Ante- and postmedian lines deeply serrated. Reniform and orbicular stigmata present, of ground colour, hardly visible. The characteristic whitish pattern as in figs. 1–2 (colour plate IXa). Hindwing whitish-grey suffused

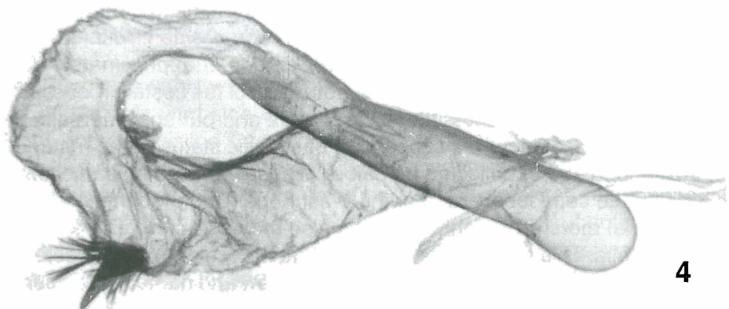
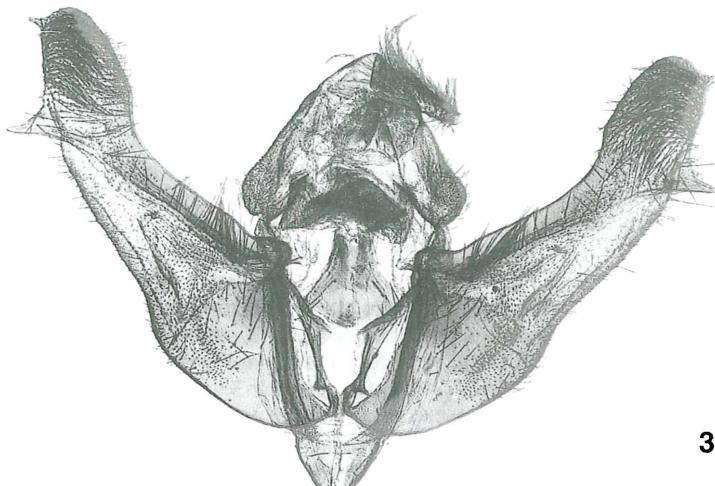


Fig. 1: *Polymixis remmi* spec. nov., paratype ♂, genital capsula.

Fig. 2: *Polymixis remmi* spec. nov., paratype ♂, aedeagus with everted vesica from dorsal view.

Fig. 3: *Polymixis remmi* spec. nov., paratype, ♀-genitalia.

with brownish-grey of various degree. Terminal line and veins darker brownish-grey. Cellular lunule and medial line diffuse.

Male genitalia (figs. 1–2): Uncus short with long hairs; tegumen less high with well developed penicular lobes; fultura inferior subdeltoid; vinculum short and strong, V-shaped. Valva elongated, narrowed after sacculus, apically bent up with short subapical processus; sacculus short; cucullus with rounded apex, setose; costal processus triangular, well sclerotized, projecting over the ventral distal border. Aedeagus cylindrical, slightly recurved ventrally; vesica everted forward and strongly recurved laterally, bearing dorsolaterally a small semiglobular diverticulum in the left side of its first third; distal part of vesica dilated, armed with a large bundle of long cornuti of various size.

Female genitalia (fig. 3): Ovipositor short; papillae anales conical, sensory setae long; apophyses moderately long. Ostium bursae sclerotized; ductus bursae partly membranous, left side sclerotized; inception of ductus seminalis at the apex of cervix; cervix bursae, rigulose, large, in ventral view its right part covers the ductus bursae; corpus bursae an elongated membranous sac, without signa.

Material

Holotype ♂: "Turkmenistan SW, Kopetdag mtr., Garrygala env.", 1.–15.XI.1995, J. MIATLEŪSKI leg., coll. J. MIATLEŪSKI (Vilnius).

Paratypes: 11 ♂♂, 2 ♀♀ with the same data as the holotype; 26 ♂♂, 4 ♀♀ from the same locality, 16.–30.XI.1995; 1 ♀, "Turkmenistan SW, Kopetdag, Garrygala env.", 15.–30.XI.1994 (coll. A. SALDAITIS, Vilnius; coll. J. MIATLEŪSKI; 2 ♂♂, 1 ♀ in coll. A. & J. LUIG, Tartu); 1 ♂, Turkmenistan, Yashkan, 31.X.1981, M. TALVE leg. (with genitalia preparation, det. by H. REMM as *Leucochlaena* spec.) (coll. Univ. Tartu). Genitalia preparations of J. LUIG nos. 1058, 1059, 1060, 1061, 1062.

Diagnosis

The new species is very similar in external appearance to *P. atossa centralasiae* but differs from this taxon by male genitalic features (valva narrowed after sacculus, apically bent up, sclerotization of costal processus stronger) and in the female genitalia (sensory setae of papillae anales much longer, right part of cervix bursae larger).

Remarks

The biology of the new species is unknown except for the flying time of the imago. The specimens from the West Kopet Dagh have been collected at low altitudes of approximately 350 m.

Acknowledgements

We would like to express our thanks to Mr. M. MARITS who advised us in the phototechnical field.

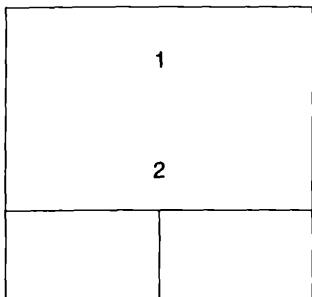
References

HACKER, H. (1990): Die Noctuidae Vorderasiens (Lepidoptera). Systematische Liste mit einer Übersicht über die Verbreitung unter besonderer Berücksichtigung der Fauna der Türkei (einschließlich der Nachbargebiete Balkan, Südrussland, Westturkestan, Arabische Halbinsel, Ägypten). – Neue Entomologische Nachrichten **27**: 1–706.

Explanation of colour plate IXa (p. 211):

Fig. 1: *Polymixis remmi* spec. nov., holotype ♂.

Fig. 2: *Polymixis remmi* spec. nov., dark specimen, paratype ♂.



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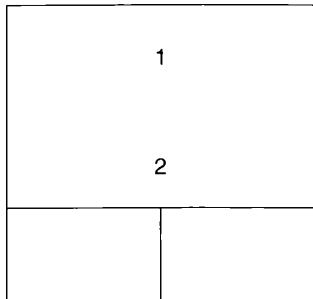
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Colour plate IXa

LUIG, J., MIATLEÜSKI, J. & A. SALDAITIS: A new species of the genus *Polymixis* HÜBNER, [1820] from Western Turkmenistan (Lepidoptera, Noctuidae). – *Atalanta* **28** (1/2): 153–156.

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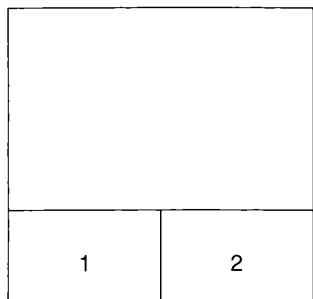


Farbtafel IXb

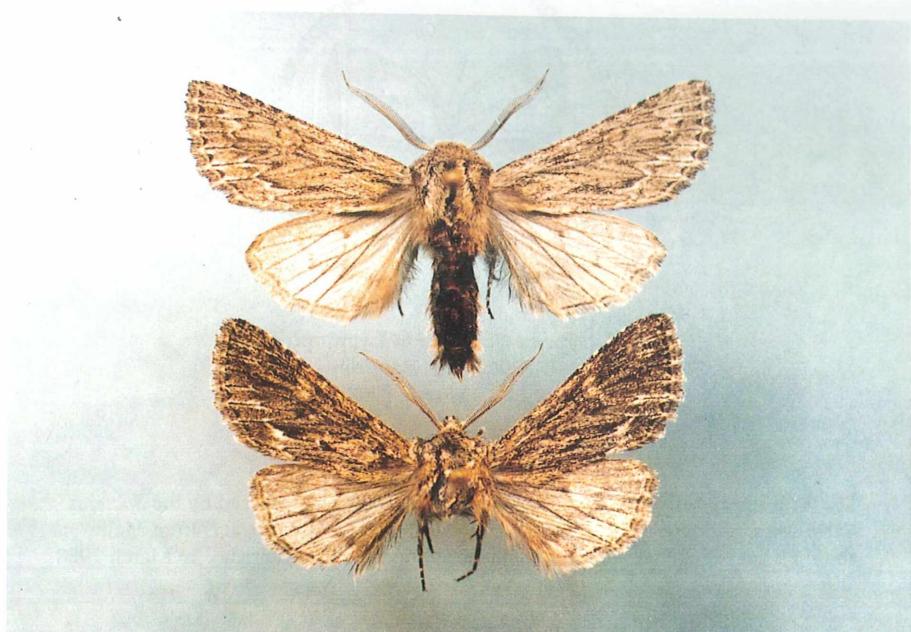
LÖDL, M.: *Hypena acrocompsa* TURNER, 1932, nunmehr gesichertes Synonym zu *Hypena (Jussalyepena) laceratalis* WALKER, [1859] 1858 (Lepidoptera, Noctuidae, Hypeninae). – *Atalanta* **28** (1/2): 157–159.

Abb. 1: *Hypena acrocompsa* TURNER, 1932, ♂-Lectotype (ANIC).

Abb. 2: *Hypena acrocompsa* TURNER, 1932, ♀-Paralectotype (ANIC).



Colour plate IXa / Farbtafel IXb



Stradbroke I.
Q. 9-9-10

AUST. NAT.
INS. COLL.



Netherlands
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Hybena TYPE
accompagnement

AUST. NAT.
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PARALECTOTYPE

designated by